

Title (en)
METHOD AND APPARATUS FOR DECODING ERROR CORRECTION CODE

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EP 0387924 A3 19910320 (EN)

Application
EP 90109867 A 19841219

Priority
• EP 85900195 A 19841219
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Abstract (en)
[origin: EP0387924A2] An apparatus for decoding non-dualistic error correction codes in which a syndrome is a result of an addition of a series of received symbols in (mod.2) and by which the error of a plurality of symbols in said series of received symbols can be corrected, which comprises a syndrome register for storing said syndromes so that an error value with respect to a symbol can be formed by subtracting another error value from a value stored in said syndrome register in connection with a plurality of erroneous symbols. This is usable with a method for decoding Reed-Solomon code which can be solved by erasure correction in accordance with the expression: $\sum_{k=1}^d X_k Y_k = \sum_{n=0}^{d-2} \lambda_n Z^n$ where, $\lambda_n = 0$ to $d-2$: Number of erasure X_k : Location of kth S λ_n : Syndrome Y_k : Magnitude of error in the erasure of kth d : Minimum distance of code the method comprising obtaining the roots of the above expression by $\sum_{n=0}^{d-2} \lambda_n Z^n = 0$ where λ_n : Coefficient of Z^n of $\sum_{n=0}^{d-2} \lambda_n Z^n = 0$ 1 : Any integer more than or equal to 0 which satisfies $1 \leq n \leq d-1$.

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H03M 13/00

IPC 8 full level
H03M 13/00 (2006.01); **H03M 13/15** (2006.01); **H03M 13/29** (2006.01)

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Citation (search report)
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• [A] US 4142174 A 19790227 - CHEN CHIN L, et al
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